

What is claimed is:

1. An optical deflection device comprising an optical deflection element having a prescribed deflecting plane of deflecting a direction of light, a drive portion for driving the optical deflection element rotatably at least, a fixing portion for supporting and fixing the optical deflection element, a movable portion including above optical deflection element, a support member connected with the fixing portion and for supporting this, and a damping member installed between the movable portion and the fixing portion.
2. An optical deflection device as claimed in claim 1, wherein the damping member is provided in the vertical direction substantially compared with the deflecting plane.
3. An optical deflection device as claimed in claim 1, wherein the damping member is provided in neighborhood at the rotation center of the optical deflection element.
4. An optical deflection device as claimed in claim 1, wherein the damping member is provided at the center part of the movable portion substantially at the rear side opposed to the deflecting plane of the optical deflection element.
5. An optical deflection device as claimed in claim 4, wherein the fixing portion has a projection extended to the rear side of the optical deflection element almost in the center part, and the damping member is provided between the movable portion and the projections of the fixing portion.
6. An optical deflection device as claimed in claim 5, wherein the damping member has a cylindrical shape.
7. An optical deflection device as claimed in claim 1, wherein the damping member constituted with gel, rubber, grease or oil.
8. An optical deflection device as claimed in claim 1, wherein the optical deflection element is an optical element using the reflection action or the refraction action.
9. An optical deflection device as claimed in claim 1, wherein the drive portion comprises a coil provided so as to support the optical deflection element indirectly or directly, and a magnet installed in periphery of the coil.
10. An optical deflection device as claimed in claim 9, wherein the coil

contains a first coil and a second coil, and the magnet is installed at outside of the first coil and the second coil.

11. An optical deflection device as claimed in claim 1, further comprising a frame member for supporting the optical deflection element directly.

12. An optical deflection device as claimed in claim 11, wherein the coil is built into the frame member.

13. An optical deflection device as claimed in claim 1, further comprising a light emitting source for irradiating prescribed light to the movable portion, at the rear side opposed to the deflecting plane of the optical deflection element, and a sensor for detecting the gradient of the deflecting plane opposed to the deflecting plane of the optical deflection element, by receiving the light.

14. An optical deflection device as claimed in claim 13, wherein the photo detector for position detection is included in the sensor.

15. An optical deflection device as claimed in claim 13, wherein the damping member is provided on the deflecting plane in the substantially vertical direction.

16. An optical deflection device as claimed in claim 13, wherein the damping member is provided in neighborhood at the rotation center of the optical deflection element.

17. An optical deflection device as claimed in claim 13, wherein the damping member is provided at the center part of the movable portion substantially at the rear side opposed to the deflecting plane of the movable portion.

18. An optical deflection device as claimed in claim 17, wherein the fixing portion has a projection extended to the rear side of the movable portion almost at the center part, and the damping member is provided between the movable portion and the projections of the fixing portion.

19. An optical deflection device as claimed in claim 18, wherein the damping member has a cylindrical shape or a plate shape.

20. An optical deflection device as claimed in claim 13, wherein the damping member is constituted with gel, rubber, grease or oil.